This is a full and timely response to the outstanding non-final Office Action mailed September 21, 2005. Reconsideration and allowance of the application and pending claims are respectfully requested.

I. Claim Rejections - 35 U.S.C. § 112, First Paragraph

Claim 1 has been rejected under 35 U.S.C. § 112, first paragraph, for allegedly containing limitations that are not enabled by the disclosure. In particular, the Office Action alleges that the phrase "automatically determining without prompting from a user" is not enabled.

Although Applicant disagrees that the above-noted phrase is not enabled, Applicant has removed the phrase from the claim in the interest in facilitating prompt issuance of a patent. In view of that amendment, Applicant respectfully submits that the rejection is moot, and requests that the rejection be withdrawn.

II. Claim Rejections - 35 U.S.C. § 103(a)

Claims 1-5, 7-11, 13, 16, 17, and 21-26 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Smale (U.S. Pat. No. 5,764,985) in view of Niemi, et al. ("Niemi," U.S. Pat. No. 6,584,491). Applicant respectfully traverses this rejection.

As has been acknowledged by the Court of Appeals for the Federal Circuit, the U.S. Patent and Trademark Office ("USPTO") has the burden under section 103 to establish a *prima facie* case of obviousness by showing some objective teaching in the prior art or generally available knowledge of one of ordinary skill in the art that would lead that

individual to the claimed invention. *See In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). The Manual of Patent Examining Procedure (MPEP) section 2143 discusses the requirements of a *prima facie* case for obviousness. That section provides as follows:

> To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teaching. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and reasonable expectation of success must be found in the prior art, and not based on applicant's disclosure.

In the present case, the prior art does not teach or suggest all of the claim limitations, and there is no suggestion or motivation in the prior art to modify the references to include those limitations.

A.   The Smale Disclosure

The Examiner primarily relies upon lines 10-31 and 41-67 of column 4 of the Smale reference in rejecting Applicant's claims. Those sections of the Smale reference provide as follows:

> In the WOSA configuration, application programs 23, 24 initiate function calls via an application program interface (API) 25 requesting the

performance of various operations. From the API 25, the call is received by a routing component 26, which routes the requested function call through a service provider interface (SPI) 27 to one or more appropriate service providers. One of the service providers, e.g. service provider 28, may handle the request directly, or alternatively may call on other, lower-level service providers (not shown). Another service provider 29 is provided to call on operating system functions when so required by the requesting function call. . . .

FIG. 2A illustrates the general flow of operation when a typical function call is made from an application program. As previously described, with a layered architecture, a request router 30 of the routing component 26 initially receives the requesting call from the API 25, as indicated by step (1) of FIG. 2A. In keeping with the invention, at step (2) the function call is subsequently passed from the request router 30 to the notification manager 32. In turn, the notification manager 32 sequentially notifies each of the extensions 34, 35, at steps (3) and (4), respectively, of the pending call before the call is made (pre-notification). This pre-notification step is also shown in FIG. 2B as step 16.

During this pre-notification procedure the extensions 34, 35 are called, enabling the extensions to execute their own procedures and perform operations according to their extended functionality thereby providing extensibility to the pending operation request. However, as described in more detail below, the extensions 34, 35 are limited in how they can ultimately affect the subsequent passing of the pending request to the appropriate service provider.

Following pre-notification of the extensions, the notification manager returns control of the call to the request router 30 at step (5), which then routes the call to one or more appropriate service providers, such as the service provider 28, at step (6). The service provider 28 services the requesting call, and when completed, returns control to the

request router 30 at step (7). The call or calls to the service providers are also shown in FIG. 2B as step 18. It should be noted that an extension can also be a service provider itself. Accordingly, service providers may register as extensions with the notification manager 32.

Applicant claims methods and systems that are distinct from those described in the foregoing excerpt.

B.   Applicant's Claims 1-5 and 21-22

Applicant's independent claim 1 provides as follows (emphasis added):

1.   A method for intercepting an event, the method comprising:
generating an event with an application program;

calling an application program interface to process the event;

receiving the event with the application program interface;

determining with the application program interface if an intercept library is enabled to process the event;

if the intercept library is enabled to process the event, calling the intercept library with the application program interface through a generic interception communication interface having at least one intercept event send handler, the generic interception communication interface maintaining communication between the application program interface and the intercept library;

transmitting the event to the intercept library with the at least one send handler of the generic interception communication interface;

determining at the intercept library if the event is to be processed by the intercept library; and

if the event is to be processed by the intercept library, processing the event with the intercept library.

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Applicant discusses various limitations of the above claim in the following.

1. Determining if Intercept Library is Enabled to Process Event with an Application Program Interface

As an initial matter, Smale does not teach "determining with the application program interface if an intercept library is enabled to process the event". More particularly, *no* determination is made in the Smale system as to whether an intercept library is enabled to process an event at all. There is simply no disclosure from Smale on this point. Applicant further notes that, contrary to that alleged in the Office Action, column 4, lines 53-60 of the Smale reference does not teach this limitation. Instead, that portion of the Smale disclosure provides as follows (emphasis added):

> *During this pre-notification procedure the extensions 34, 35 are called*, enabling the extensions to execute their own procedures and perform operations according to their extended functionality thereby providing extensibility to the pending operation request. However, as described in more detail below, the extensions 34, 35 are limited in how they can ultimately affect the subsequent passing of the pending request to the appropriate service provider.

Clearly, nothing in this excerpt discusses "determining" whether an intercept library is "enabled to process the event". First, Smale's cryptic reference to "pre-notification" does *not* equate to a teaching of "determining" whether an intercept library is "enabled to process" the event. Moreover, Applicant notes that, as is apparent from the above

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excerpt, it is Smale's monitor extensions 34 and 35 that receive the "pre-notification."

Therefore, if, as is argued by the Examiner (see section "3" below), Smale's service

providers 28 and 29 are equivalent to Applicant's claimed "intercept library", *the pre-*

notification is not even provided to what the Examiner alleges to be Smale's intercept

library.

Finally, in response to the Examiner's comments contained in the Advisory

Action issued on April 12, 2005, Applicant notes that column 8, lines 14-23 also fail to

teach determining whether an intercept library is enabled to process an event. That

portion of the Smale disclosure provides as follows:

> After at least one extension has been registered and a valid
> function call from the API 24 is received at the notification manager 32,
> the notification manager 32 executes a preliminary procedure to prepare
> for the pre-notification of the appropriate types of extensions. It should be
> noted that invalid function calls from application programs (e.g., calls
> passing in bad parameters) are ordinarily detected at the MPR 26 and
> returned to the application program without ever reaching the notification
> manager.

First, this excerpt says nothing of making a "determination" as to whether an intercept

library is "enabled". Second, Smale is discussing the extensions 34 and 35, *not* the

service providers 28 and 29 which the Examiner alleges to equate to Applicant's intercept

library (see section "3" below).

As a final matter, Applicant notes that Smale does *not* describe that an

"application program interface" makes any determination as to whether an intercept

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library is enabled to process an event. For the record, Applicant notes that Niemi similarly fails to provide such a teaching.

2. Transmitting Event *If* the Intercept Library is Enabled

Smale further does not teach "if the intercept library is enabled to process the event, calling the intercept library with the application program interface through a generic interception communication interface having at least one intercept event send handler" and then "transmitting the event to the intercept library with the at least one send handler of the generic interception communication interface". In particular, Smale does not teach making a determination as to whether an intercept library is enabled to process an event *before transmitting an event from an application program interface*. Again, Applicant notes that Smale's mere reference to "pre-notification" does not equate to determining if an intercept library is enabled prior to transmitting an event to the intercept library. Moreover, as is noted above, it is Smale's monitor extensions 34 and 35 that receive "pre-notification" and not Smale's service providers 28 and 29, which the Examiner alleges to be Smale's intercept library (see section "3" below).

As a further matter, Applicant notes that the claim limitation at issue explicitly requires: "if the intercept library is enabled to process the event, calling the intercept library with the application program interface through a generic interception communication interface having at least one intercept event send handler" and "transmitting the event to the intercept library with the at least one send handler of the generic interception communication interface". This requires *first* making the enablement determination, *and then* transmitting the event from the application program interface.

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Smale teaches the opposite. Specifically, as is described above, Smale's system *first* transmits a call ("event") from the API 25 to a request router 30, which transmits the call to the notification manager 32, *and then* the notification manager 32 provides the "pre-notification" to the monitor extensions 34 and 35. Smale, column 40-52. Therefore, Smale's pre-notification occurs *after* the call has already been sent from the API, which is the *inverse* of what is recited in claim 1.

3.   "Intercept Library"

Applicant further notes that Smale does not identify any "intercept library". In the Office Action, it appears that the Examiner is arguing that Smale's service providers 28 and 29 together comprise such an intercept library. See Final Office Action, page 4, lines 6-8. Applicant disagrees. *Nothing* in the Smale disclosure states that Smale's service providers are libraries of any kind. Moreover, column 4, lines 61-67 and column 5, lines 1-4 of the Smale reference, which were identified in the Advisory Action, do not provide this missing teaching.

4.   Transmitting the Event to the Intercept Library with a Send Handler of the Generic Interception Communication Interface

Smale also does not teach or suggest "transmitting the event to the intercept library with the at least one send handler of the generic interception communication interface" for at least two reasons. First, as is mentioned above, Smale does not disclose an "intercept library". Second, Smale does not disclose a "generic" interception communication interface having "send handlers". Although Smale describes a "routing

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component," *nowhere* does Smale state that that component is generic within the meaning of Applicant's disclosure, or that the component comprises "send handlers". As is described in Applicant's specification, the term "generic" refers to the ability of the interface to handle all API events without prior knowledge of the nature of those events. See, e.g., Applicant's specification, page 7, lines 1-8.

In response to the Examiner's point contained in the Advisory Action that "the specification should not be read into the claim," Applicant agrees that additional claim limitations contained in the specification should not be incorporated into the claims. However, Applicant notes that it is well established in the law that claim terms are to be *interpreted* in light of the specification. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 34 USPQ2d 1321 (Fed. Cir. 1995)(in banc), *aff'd*, 517 U.S. 370, 38 USPQ2d 1461 (1996) ("Claims must be read in view of the specification, of which they are a part").

5. Determining at the Intercept Library if the Event is to be Processed by the Intercept Library

In the outstanding Office Action, the Examiner admits that Smale does not teach determining if an event is to be processed by an intercept library, but the Examiner relies upon Niemi for providing the missing teaching. In regard to that limitation, Applicant notes that neither Smale nor Niemi teach determining "at the intercept library" if the event is to be processed by the intercept library. The Smale/Niemi combination fails to render claim 1 for at least this reason.

6. Dependent Claims

Applicant further notes that Applicant's dependent claims contain limitations that are not taught or suggested by Smale or Niemi. For example, in regard to claim 5, the references do not teach or suggest "sending a message enabling the application program interface to process the event if the intercept library cannot process the event". Again, as is noted above, Smale does not teach determining if an intercept library is enabled to process an event. It logically follows that Smale does not teach sending a message enabling the application program interface to process the event "if the intercept library cannot process the event".

Regarding claim 21, neither reference teaches or suggests "invoking with the intercept library an event program that process the event". Regarding the Smale reference, Smale discloses no such "event program" that process events for an intercept library.

7.   Conclusion

For at least the foregoing reasons, neither Smale nor Niemi teach or suggest the limitations of claim 1, or claims 2-5 and 21-22 which depend therefrom. Accordingly, claims 1-5 and 21-22 are allowable over Smale and Niemi.

C.   Applicant's Claims 7-11 and 23-24

Applicant's independent claim 7 provides as follows (emphasis added):

7.   An event interception system for generic interception of events, comprising:

means for receiving and processing an event generated by an application program;

means for determining whether any intercepting means is enabled to process the event;

means for transmitting the event from the receiving and processing means to the intercepting means if the intercepting means is enabled to process the event; and

intercepting means for receiving and processing the event;

wherein the means for transmitting the event comprises a generic interception communication interface having at least one intercept event send handler, the generic interception communication interface maintaining communication between the intercepting means and the processing means.

Referring to independent claim 7, neither Smale nor Niemi teach or suggest "means for determining whether any intercepting means is enabled to process the event" or "means for transmitting the event from the receiving and processing means to the intercepting means if the intercepting means is enabled to process the event". First, contrary to that alleged in the Office Action, Smale does not describe determining whether interception means is enabled to process an event. Smale therefore fails to disclose means for performing that function. Second, Smale does not describe means for transmitting the event *if* the intercepting means is enabled to process the event.

As a further matter, Smale does not teach "wherein the means for transmitting the event comprises a generic interception communication interface having at least one intercept event send handler, the generic interception communication interface maintaining communication between the intercepting means and the processing means" at

least because Smale does not disclose a "generic" interception communication. Applicant refers to the discussion of claim 1 above.

For at least the foregoing reasons, the Smale/Niemi combination does not render obvious claim 7, or claims 8-11 and 23-24 which depend therefrom. Accordingly, claims 7-11 and 23-24 are allowable over Smale/Niemi.

With specific regard to the claims that depend from claim 7, neither Smale nor Niemi teach or suggest "means for sending a message enabling the processing means to process the event if the intercepting means cannot process the event" as is provided in claim 11. Applicant refers to the discussion of claim 5 provided above.

Regarding claim 23, neither Smale nor Niemi teach or suggest "means for an event program that process the event" for reasons described above in relation to claim 21.

D.   Applicant's Claims 13, 16-17, and 25-26

Applicant's independent claim 13 provides as follows (emphasis added):

13.   An event interception system for generic interception of events, comprising:

an application program interface that is configured to receive requests for service regarding events generated by an application program, the application program interface further being configured *to determine if an intercept library is enabled to process the events and, if so, transmit the events to the intercept library*;

an intercept library that is configured to process events; and

a generic interception communication interface that is configured to transmit events from the application program interface to the intercept library, the generic interception communication interface *having at least*

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one intercept event send handler for maintaining communication between the application program interface and the intercept library.

Contrary to that alleged in the Office Action, Smale does not teach an application program interface that is configured to "determine if an intercept library is enabled to process the events and, if so, transmit the events to the intercept library". As is noted above in relation to claim 1, Smale's system is not described as comprising that functionality.

Smale further does not teach an "intercept library that is configured to process events". Again, Smale does not disclose an intercept "library".

Furthermore, Smale does not teach a "generic interception communication interface . . . having at least one intercept event send handler for maintaining communication between the application program interface and the intercept library". As is stated in the foregoing, Smale does not disclose a "generic" interception communication interface.

For at least the foregoing reasons, the Smale/Niemi combination does not render obvious claim 13, or claims 16-17 and 25-26 which depend therefrom. Accordingly, claims 13, 16-17, and 25-26 are allowable over Smale/Niemi.
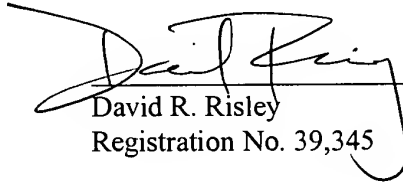
With specific regard to dependent claim 17, neither Smale nor Niemi teach or suggest "wherein the intercept library is configured to send messages enabling the application programming interface to process events if the intercept library cannot process the events" for reasons described in relation to claim 5.

Regarding claim 25, neither Smale nor Niemi teach or suggest "wherein the intercept library is further configured to invoke an event program that processes events" for reasons described in relation to claim 21.

CONCLUSION

Applicant respectfully submits that Applicant's pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to: Assistant Commissioner for Patents, Alexandria, Virginia 22313-1450, on

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